Remarks

Claims 1-20 are pending. Claims 1-20 are rejected. Claims 1-20 are cancelled by this amendment. New claims 21-40 are provided herein. Applicants respectfully traverse the rejection and request allowance of claims 21-40.

Claims 1-2, 4, 6-12, 14, and 16-20 stand rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,747,971 (Hughes et al.). Inasmuch as the rejection applies to the newly provided claims, Applicants respectfully traverse the rejection.

Independent claim 21 requires a plurality of parallel channels between a processing circuitry and each crossbar integrated circuit of a plurality of crossbar integrated circuits. The plurality of parallel channels of a particular crossbar integrated circuit are configured to transfer the communication and a clock signal in parallel to the particular crossbar integrated circuit. Independent claim 31 requires transferring a communication and a clock signal in parallel over a plurality of parallel channels to a particular crossbar integrated circuit of a plurality of crossbar integrated circuits. Advantageously, the clock signal is shared by all of the data signals within the parallel channel. The simplification and sharing of the clock circuitry reduces the amount of power and physical space that is required to provide synchronized clocking. The power and space savings can be used to support higher speed communication devices.

Hughes does not disclose transferring a communication and a clock signal in parallel over a plurality of parallel channels to a particular crossbar integrated circuit of a plurality of crossbar integrated circuits. In contrast, Hughes discloses sending switch frames in parallel to multiple switches. Hughes discloses a request controller 314 that sends a switch frame to each switch plane (see col. 6, line 64 to col. 7, line 15). Because the example circuit in FIG. 3 of Hughes has 8 switch planes 309a, 309b, 309c, 309d, 309e, 309f, 309g, and 309h, then as a consequence the same switch frame is essentially broadcast to eight switch planes. Hughes does not disclose that a switch plane is transferred in parallel to a particular switch plane of the eight switch planes. Hughes does not disclose that a switch plane is transferred in parallel with a clock signal to a particular switch plane.

Independent claims 21 and 31 therefore include features that are neither taught nor suggested by Hughes. Claims 22-30 and 32-40 are allowable for the same reasons as claims 21 and 31.

Claims 3 and 13 stand rejected under 35 U.S.C. § 103(a) as being obvious over Hughes in view of Applicant Admitted Prior Art (AAPA). The subject matter of claims 3 and 13 (now dependent claims 23 and 33) depend from independent claims 21 and 31, and therefore are patentable for the reasons previously discussed.

Claims 5 and 15 stand rejected under 35 U.S.C. § 103(a) as being obvious over Hughes in view of U.S. Patent 6,185,221 (Aybay). The subject matter of claims 5 and 15 (now dependent claims 25 and 35) depend from independent claims 21 and 31, and therefore are patentable for the reasons previously discussed.

Based on the above remarks, the Applicants submit that claims 21-40 are allowable. There may be additional reasons in support of patentability, but such reasons are omitted in the interests of brevity. The Applicants respectfully request allowance of the pending claims.

Any fees may be charged to deposit account 502622.

Respectfully submitted,

Date: 4/13/05

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